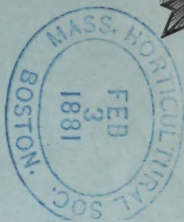
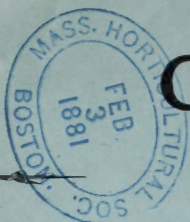


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Do not assume content reflects current scientific knowledge, policies, or practices.



CATALOGUE

— 6 OF 6 —

NORTH STAR SEED FARMS, 1881.



T. M. METCALF.

U. S. HOLLISTER, Superintendent and General Manager Seed Department,

SAINT PAUL, MINN.

Resolutions Adopted by the Minnesota State Agricultural Society,

SEPTEMBER 25, 1878.

WHEREAS, The exhibit from the NORTH STAR SEED FARMS, at the State Fair, on account of the great variety, perfection of samples exhibited, order and arrangement thereof, demand more than a passing notice by premiums awarded; therefore,

Resolved, That the Society tender to said firm its hearty thanks, as an encouragement, and recommend said Seed House as one of the best, if not the very best, in the States, and well worthy to be patronized for purity of seeds, excellence of vegetables and cereals, and for honorable dealing.

"The further North Seeds are Grown the Sooner the Product will come to Maturity."

Remember we have the most northern Seed Farm in America.

VEGETABLE PLANT CIRCULAR.

Our plants are strong, stocky and have all been transplanted once, and are of the same stock seed that we use on our own grounds for seed growing.

Early Cabbage and Cauliflower will be ready as soon as your ground is fit to work. In cans, our Tomato plants stand long journeys, and can be transplanted without a particle of injury.

Favorable prices made on large orders. We will pack and deliver at express office at the prices named. This class of plants should never be sent by mail.

EARLY CABBAGE.

| | Per 100 | Per 1000 |
|--|---------|----------|
| Transplanted and hardened..... | 50c. | \$4.00 |
| VARIETIES—Early York, Jersey, Wakefield. | | |

LATE CABBAGE.

| | | |
|--|------|------|
| From Seed Bed, ready May 20th, | 40c. | 3.00 |
| VARIETIES—Premium Flat Dutch, Stone Mason, Lange Late Drum-head. | | |

EARLY CAULIFLOWER.

| | | |
|--|------|------|
| Transplanted and hardened..... | 85c. | 6.50 |
| VARIETIES—Early Paris, Extra Early Erfurt. | | |

LATE CAULIFLOWER.

| | | |
|---|------|------|
| From Seed Bed..... | 75c. | 5.00 |
| VARIETIES—Le Normand, Veitches' Autumn Giant. | | |

TOMATOES.

| | | |
|--|------|------|
| Transplanted and hardened..... | 85c. | 6.50 |
| VARIETIES—Trophy, Gen. Grant, Hathaway's Excelsior, Dayton Purple, Acme. | | |

TOMATOES—Continued.

| | |
|--|--|
| In Cans or Pots—50c. per doz., \$4.00 per 100, \$30.00 per 1000. | |
| St. Paul and North Star Tomatoes, in cans, \$1.00 per dozen. | |

EGG PLANT.

| | Per Doz. | Per 100 | Per 1000 |
|---------------------------------|----------|---------|----------|
| Transplanted and hardened, 25c. | \$1.25 | \$9.00 | |
| In Cans or Pots..... | 75c. | 5.00 | |
| VARIETY—New York Improved. | | | |

PEPPER.

| | Per 100 | Per 1000 |
|--------------------------------|---------|----------|
| Transplanted and hardened..... | 85c. | \$7.00 |

CELERY.

| | | |
|---------------------------------|------|------|
| From Seed Bed..... | 50c. | 3.00 |
| Transplanted and cut back | 60c. | 4.00 |

SWEET POTATO PLANTS.

| | | |
|-----------------------|------|------|
| Yellow Nansemond..... | 50c. | 4.00 |
|-----------------------|------|------|

HORSE RADISH.

| | |
|---|------|
| Small Sets, just right for planting, 75c. | 5.00 |
|---|------|

Every lot of Plants will be so packed in moss and earth as to go safely and arrive in good condition. Money must accompany order unless the parties are well known to us. We do not solicit orders for plants from latitudes south of Minnesota for the obvious reason that they want them before we are prepared to furnish them.

1881

FIFTH ANNUAL CATALOGUE

OF CHOICE

FIELD, GARDEN^{AND} FLOWER
SEEDS,

Grown by Ourselves, and selected from the Stocks of the best
American and European Growers.

T. M. METCALF,

U. S. HOLLISTER, Sup't and Gen'l Manager Seed Department.

Mr. Hollister may be consulted regarding the laying out or rearranging gardens, and general Landscape Architecture.

LAWN MOWERS, GARDEN DRILLS, WHEEL HOES, IRON VASES AND LAWN FURNITURE,
FLOWER POTS, TRELLISES, WIRE FLOWER STANDS, AND A
GENERAL STOCK OF GARDEN REQUISITES.

Christmas Trees, Lycopodium, Bouquet Green, Immortelles, Pampas Plumes, Florida Moss,
Dried Grasses, Flowers, &c., for Winter Decoration.

Whale Oil Soap, Ammoniated Plant Food, Guano, Bone Dust, etc., etc.

ST. PAUL, MINN.

CIRCULAR.

In offering this FIFTH ANNUAL CATALOGUE of the

North Star Seed Farms

to Our Correspondents in every State in the Union, and also in the Canadian Provinces, it is proper that the acknowledgment be made that our rapidly increasing business is due more than to any other cause, to the now generally accepted law among scientific men, and educated practical gardeners and agriculturalists, "That the further North seeds are grown the sooner their product will come to maturity."

That we make every effort to have our seeds the best and purest that can be obtained anywhere, is a matter of ordinary business shrewdness, and vital to our continued success, for without it our stock would soon sink to the level of that of the ordinary Commission-Slop-Bucket Seed Houses. We do not place our seeds in competition with those who have been since September flooding the country with seed boxes, packed before any seed crops of 1880 were secured, priced, and ready for market.

We state it as a fact that cannot be disputed, that ours is the most northern Seed Farm on this Continent; and that our Seeds will give earlier results than any others in Florida, Texas, &c., &c., as well as in the Colorado Mountains, 8000 feet above the sea, our numerous correspondents in those States will cheerfully attest to others as they do to us.

BUSINESS CARD

ORDER EARLY. Send money with order, as we keep no book account in the mail department of our business.

Send money by draft on Chicago or St. Paul—money order, express, registered letter or postage stamps. When so sent, we GUARANTEE THAT THE MONEY SHALL REACH US.

Favorable terms to market gardeners and large planters. Prices by the ounce, pound, and bushel, given on application.

The success of a crop depends on so many contingencies, that we cannot hold ourselves responsible for failures. But, while thus disclaiming any liability as guarantors we will use our best efforts, in good faith, to have all our seeds the best and purest possible.

Vegetable Seeds.

NOTICE.

At prices given, Packets and Ounces only are sent free by mail or express.

Pounds, Quarts, Pints, Pecks or Bushels packed and delivered at express or freight office free of extra charge. Carriage to be paid by purchaser.

If pounds or Quarts are wanted sent by mail, add 16c. per pound or 25c. per quart to amount of bill.

ARTICHOKE.

Owing to difficulty in shipping tubers, the seed only is offered. Plant in early spring, and transplant to permanent beds the following spring. It is a perennial, and will give an abundant crop second year. Protect in winter by a covering of leaves or straw.

| | Pkt. Cts. | Oz. Cts. |
|--|--------------|-------------|
| Large Globe, best for general culture..... | 10 | 30 |

ASPARAGUS.

Soak seed in warm water 24 hours before sowing. Sow in early spring—in rows one foot apart. Transplant to permanent bed when one or two years old. Plant in rows three feet apart, and one foot apart in rows. Cover crown of plant four to six inches.

| | Lb. Mail. Cts. | Lb. Ex. Cts. | Oz. Cts. | Pkt. Cts. |
|----------------------------|-------------------|-----------------|-------------|--------------|
| Giant, or Purple Top. | 75 | 60 | 10 | 5 |
| Connover's Colossal..... | 75 | 60 | 10 | 5 |

BEANS, Dwarf or Bush.

Plant in succession—from April to August—in drills two inches deep, and from 18 to 24 inches apart. The plants should stand three inches apart in drills. This class of plants will do well on poor soil, but better on good soil.

If wanted by mail, add 25 cts. per quart for postage.

| | Qts. Cts. | Pts. Cts. | Pkt. Cts. |
|--|--------------|--------------|--------------|
| Early China Red Eye, very early..... | 30 | 20 | 10 |
| Early Red Valentine, good snap bean, remains a long time in a green state | 20 | 15 | 10 |
| Early Mohawk, hardy and productive —best for northern latitudes | 25 | 15 | 10 |
| Early Rachel..... | 25 | 15 | 10 |
| Early Six Weeks..... | 25 | 15 | 10 |
| Early Refugee, or 1000 to 1, largely grown for pickling..... | 30 | 15 | 10 |
| Golden Wax, new and promising | 40 | 30 | 10 |
| German Wax, black seed..... | 40 | 30 | 10 |
| “ “ white seed..... | 40 | 30 | 10 |

BEANS, Pole.

| | | | |
|------------------------------------|----|----|----|
| Horticultural, large and fine..... | 40 | 30 | 10 |
| Lima, Drier's improved..... | 50 | 35 | 10 |

BEANS, Pole—Continued.

| | Qts. Cts. | Pts. Cts. | Pkt. Cts. |
|---|--------------|--------------|--------------|
| Small Lima, or Sieva, early and hardy— decidedly the Lima Bean for north- ern latitudes | 50 | 30 | 10 |
| Case Knife, old well-known sort..... | 50 | 30 | 10 |
| Scarlet Runner..... | 50 | 30 | 10 |

BEEF.

For early use sow soon as ground is fit to work, in drills a foot apart, and two inches deep.

For general crop, sow first week in May. For table use in winter, sow in June. When fit to pull for greens, thin to eight inches apart. The soil should be light and rich. They may be kept fresh for spring use by burying them in trenches, below frost, during winter.

✂ If by mail—1-4 lb. and upwards—add postage at the rate of 16 cents per pound.

| | Lb. \$ Cts. | Oz. Cts. | Pkt. Cts. |
|---|----------------|-------------|--------------|
| Egyptian Turnip, earliest grown.... | 1 25 | 15 | 5 |
| Early Bassano, good for early crop.. | 75 | 10 | 5 |
| Early Blood Turnip, best for general early market crop—fine flavor.. | 75 | 10 | 5 |
| Bewing's Improved Blood Turnip... | 75 | 10 | 5 |
| Improved Long Dark Blood, best late sort..... | 75 | 10 | 5 |

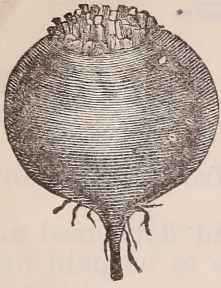
FIELD SORTS, for Stock Feeding.

| | Lb. Cts. | Oz. Cts. |
|-----------------------------|-------------|-------------|
| White French Sugar | 60 | 10 |
| Long Red Mangel Wurzel..... | 50 | 10 |
| Mammoth Mangel..... | 60 | 10 |
| Yellow Globe Mangel..... | 60 | 10 |
| Red Globe Mangel | 60 | 10 |

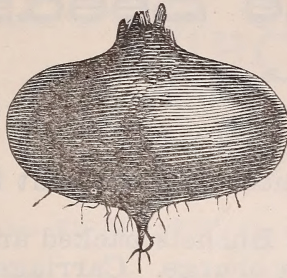
BROCCOLI.

Very closely related to the Cauliflower, which it resembles. It is more hardy, and surer to head. Treat same as Cauliflower.

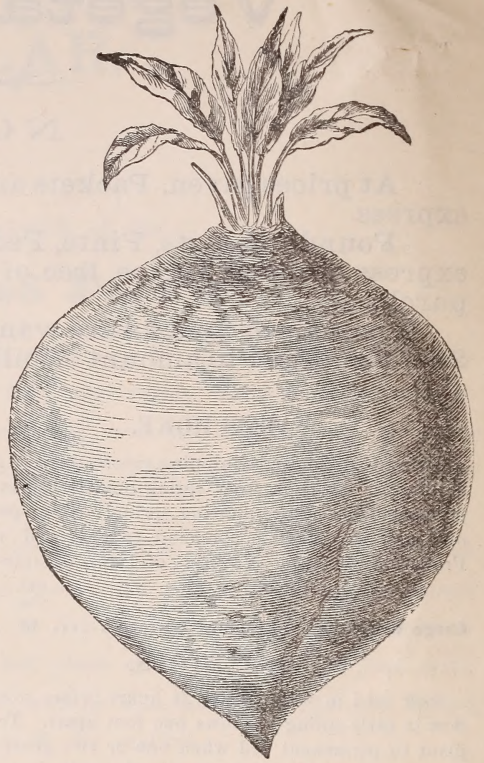
| | Oz. Cts. | Pkt. Cts. |
|------------------------|-------------|--------------|
| Early Purple Cape..... | 40 | 10 |
| Early Large White..... | 40 | 10 |



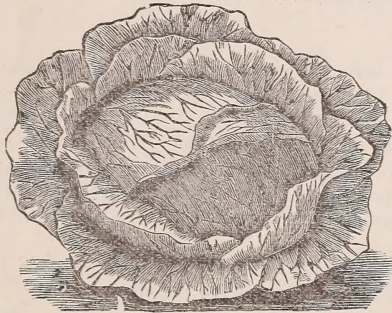
**Dewing's Blood
Turnip Beet.**



Blood Turnip Beet.



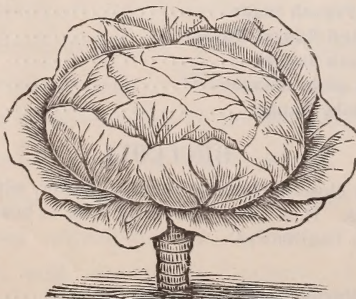
Globe Mangel.



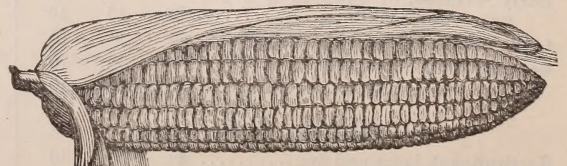
Henderson's Summer Cabbage.



Snowball Cauliflower.



Premium Flat Dutch Cabbage.



Burr's Improved Evergreen Sweet Corn.

CABBAGE.

The early varieties of Cabbage should be sown in hot bed about six weeks before ground would be fit to work out of doors. As soon as weather permits, transplant in rows, three feet by 18 inches.

In latitude of St. Paul, seed for plants of Winter Cabbage should be sown out of doors, at such a time as would produce good plants for setting from 1st to 20th of June.

Cabbage requires very rich soil, and frequent and thorough cultivation.

| | Lb. Cts. | Oz. Cts. | Pkt. Cts. |
|---|-------------|-------------|--------------|
| Early York , standard early..... | 15 | | 5 |
| Large York , larger and second early .. | 15 | | 5 |
| Henderson's Summer , extra stock. The best seed we have ever offered, and gardeners can rely on getting it right..... | 50 | | 10 |
| Early Jersey Wakefield , standard market sort, select, strictly first class stock, American grown, and will be found superior to anything offered in the west..... | 30 | | 10 |
| Early Winningstadt | 25 | | 5 |
| Early French Oxheart , very early.... | 20 | | 5 |
| Early Drumhead , 2d early..... | 40 | | 5 |
| Early Dwarf Dutch , 2d early..... | 40 | | 5 |
| Fottler's Improved Brunswick , decidedly a good second early, and when planted late makes a superb Winter Cabbage..... | 40 | | 5 |
| Red Dutch , for pickling..... | 30 | | 5 |
| Stone Mason , good reliable sort..... | 25 | | 5 |
| Premium Flat Dutch , extra select stock..... | 25 | | 5 |
| American Drumhead , choice stock.... | 25 | | 5 |
| American Drumhead Savoy , best Savoy, fine flavor, and sure header..... | 30 | | 5 |

CAULIFLOWER.

Soil and treatment adapted to the best results in growing Cabbage, will be found equally as successful with Cauliflower, except that the latter thrives a little better in cool, moist situations.

| | Oz. \$ | Pkt. Cts. |
|---|-----------|--------------|
| Earliest Dwarf Erfurt , 1st quality, earliest grown..... | 2 50 | 25 |
| Half Early Paris , good and reliable. This is a sure header, and one of the best grown for the N. W. We offer it for the first time this year, after thorough trial, and recommend it as a good one..... | 2 00 | 25 |
| Early London | 50 | 10 |
| Late London | 50 | 10 |
| Large LeYormand , best late Cauliflower.. | 1 25 | 20 |
| Velthe's Autumn Giant | 1 50 | 20 |
| Early Favorite or Snow Ball , one of the best and most reliable sorts we ever tried.. | 2 50 | 25 |

CARROT.

American grown Carrot seed is the best in the world. The seed we offer is grown by ourselves from selected stock root, and will give satisfaction.

CARROT—Continued.

The Carrot thrives best in a light, rich, deeply-tilled soil. For early use, sow as soon as the ground can be worked. For general crop, sow in latitude of St. Paul, at any time from early spring until June 10th. Sow in rows, fifteen inches apart, thinning to four inches in the row.

If by mail in quantities of 1-4 lb. and upwards, add postage at the rate of 16 cents per pound.

| | Lb. \$ | Oz. Cts. | Pkt. Cts. |
|---|-----------|-------------|--------------|
| Early Scarlet Horn , best summer variety..... | 2 00 | 20 | 5 |
| Half Long Orange , good intermediate sort..... | 1 50 | 15 | 5 |
| Danver's Half Long , a superb, fine shaped Carrot..... | 1 25 | 10 | 5 |
| Improved Long Orange , extra stock. | 1 00 | 15 | 5 |
| White Belgian , good stock Carrot, very large..... | 60 | 10 | 5 |

CELERY.

Sow the seed in open ground as soon as fit to work, shear off the tops once before transplanting, to insure stocky plants. Transplant from first of June to first of July, according to the season wanted for use.

Plant in rows four feet apart, and six inches apart in rows. Cultivate well first six weeks. About the middle of August begin earthing up what is wanted for fall use, which must be earthed to the top by the first of October.

That required for winter use, should be handled—i. e., the tops brought together—and a few inches of earth drawn around it to keep it upright. This may be blanched either by packing in sand in cellar or in trenches out of doors.

Celery requires a deep and very rich soil.

| | Oz. Cts. | Pkt. Cts. |
|---|-------------|--------------|
| Crawford's Half Dwarf , a very popular sort growing 18 inches high, or about one-third larger than the dwarf sort..... | 30 | 10 |
| American Dwarf White Solid , one of the best | 30 | 5 |
| Boston Market , a favorite with many..... | 30 | 5 |
| Sandringham Dwarf White , our favorite, and popular with gardeners here..... | 30 | 10 |
| Carter's Dwarf Crimson | 30 | 5 |
| Celeriac , or Turnip Rooted Celery..... | 25 | 5 |

SWEET CORN.

In this crop, we present to planters our Minnesota grown seed, which will prove the truth of our assertion, that "the further north seeds are grown, the sooner the product will come to maturity."

If you want early Sweet Corn, our Minnesota is the best early in the world, and our Red River is the earliest of which we have any knowledge, and is recommended.

Select rich warm soil, plant as soon as the ground begins to warm, don't wait too late, you will be surprised at the amount of cold and wet it will stand while starting.

Plant in rows three feet apart, the hills 18 inches apart in the row, and keep free from weeds.

Long Orange Carrot.



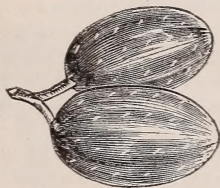
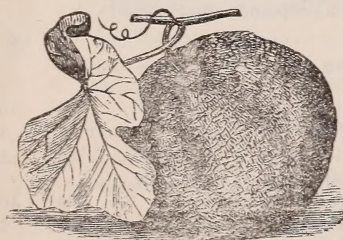
Early Horn Carrot.



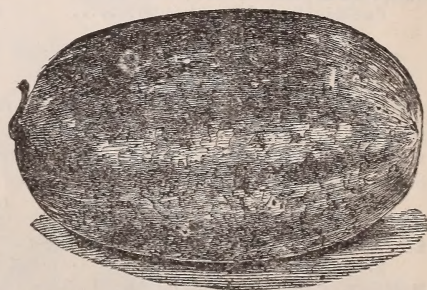
Half Long Carrot.



Boston Market Celery.

Sandringham
Celery.Early Russian
Cucumber.Improved Long Green
Cucumber.

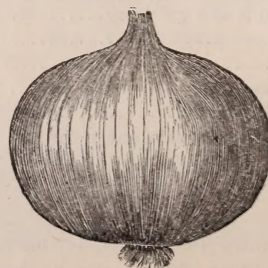
Musk Melon. Skillman's Netted.



Pinney's Early Watermelon.



Green Nutmeg Musk Melon.



Extra Early Red Onion.

SWEET CORN—Continued.

If by mail, add postage at the rate of 25 cents per quart.

| | Bush. \$ | Qts. Cts. | Pkt. Cts. |
|---|-------------|--------------|--------------|
| Early Minnesota , genuine stock..... | 4 00 | 25 | 10 |
| Crosby's Early , good flavor, Second early..... | 4 00 | 25 | 10 |
| Moore's Early Concord | 4 00 | 20 | 10 |
| Burr's Improved Evergreen , large and delicious, better than Stowell's. | 5 00 | 30 | 10 |
| Black Mexican Sugar | | 25 | 10 |
| Red River , the earliest good sweet corn known, good habit, very sweet and prolific, will beat early Minnesota a week..... | 4 00 | 30 | 10 |
| Parching | 4 00 | 25 | 10 |

CORN SALAD.

| | Oz. Cts. | Pkt. Cts. |
|-------------------------|-------------|--------------|
| Corn Salad | 10 | 5 |

Treat same as lettuce.

CRESS.

| | | |
|-------------------------------|----|---|
| Fine Moss Curled | 10 | 5 |
|-------------------------------|----|---|

Plant in rows, thickly, 12 inches apart. Cover very lightly.

CUCUMBER.

Plant in hills, four feet apart each way, in rich, warm loamy soil. Do not plant until all danger of frost is over. For pickles, plant from first to tenth of June. Gather all fruit as fast as grown, as it destroys the productiveness of the vine to let them ripen.

If by mail, add postage at the rate of 16 cts. per lb.

| | Lb. \$ | Oz. Cts. | Pkt. Cts. |
|--|-----------|-------------|--------------|
| Early Russian , the earliest variety.... | 1 00 | 10 | 5 |
| Early Cluster , grows in clusters..... | 1 00 | 10 | 5 |
| Early White Spine , best table sort.... | 1 00 | 10 | 5 |
| Long Green , well known sort..... | 1 00 | 10 | 5 |
| Gherkin or Burr , for pickling only. | 2 00 | 20 | 10 |
| Early Frame , or Short Green . This is the Cucumber grown by the managers of pickle factories, as being the best known for pickling..... | 75 | 10 | 5 |
| Swan's Neck , a very promising novelty 18 inches to 2 feet. Packet only..... | | | 25 |
| Longest White , a beautiful pure white Cucumber, from 18 to 36 inches long..... | | | 25 |
| White Japanese , pure white, and about the size of White Spine..... | | | 25 |
| Snake , well known novelty..... | | | 25 |
| Netted Russian , a beauty, and very productive.. | | | 25 |

EGG PLANT.

Sow seed in hot bed early in April. Transplant when danger from frost is over two and one-half feet apart each way. This plant should have rich warm soil.

| | Oz. Cts. | Pkt. Cts. |
|---|-------------|--------------|
| N. Y. Improved , best and most reliable sort.. | 40 | 10 |

ENDIVE.

Sow and cultivate same as Lettuce. It must be

ENDIVE—Continued.

blanched for use, by tying the outer leaves together in center of plant when full grown, in which condition they may remain from three to six weeks. A simpler way is to cover with boards in any way to exclude the light. It is one of the best salads for fall and winter use.

| | Oz. Cts. | Pkt. Cts. |
|---|-------------|--------------|
| French Moss Curled , best hardy sort..... | 15 | 5 |
| Green Curled , very hardy, dark green, tender and crisp..... | 15 | 5 |

KOHL RABBI.

Treat much like cabbage, except that it is difficult to transplant, and does better if the seed is planted where the plant is to grow.

| | Oz. Cts. | Pkt. Cts. |
|---|-------------|--------------|
| Early White Vienna , most popular..... | 20 | 5 |
| Early Purple Vienna | 20 | 5 |

LEEK.

Sow seed in early spring, and when six inches high transplant eight inches apart each way. Put down deep so as to cover neck, in order that it may blanch.

| | Oz. Cts. | Pkt. Cts. |
|--------------------------|-------------|--------------|
| Large Rouen | 15 | 5 |
| London Flag | 15 | 5 |

LETTUCE.

Sow in autumn, or in very early spring for early use, and in succession during the spring months for later crop. It bears transplanting, and is improved by it.

| | Lb. Cts. | Oz. Cts. | Pkt. Cts. |
|--|-------------|-------------|--------------|
| Early Dutch Butter Head . We recommend this for the market gardener, or for private gardens, to be the best Lettuce on our list, heads well, and is very compact..... | 2 00 | 20 | 10 |
| Early Tennis Ball , white seed, the earliest and one of the best for forcing..... | 25 | | 5 |
| Early Curled Silesian , No. 1 sort..... | 15 | | 5 |
| Early Curled Simpson , fine flavor, one of the best..... | 20 | | 5 |
| Boston Curled | 20 | | 5 |
| Improved Head | 20 | | 5 |
| Summer Cabbage | 20 | | 5 |
| Satisfaction | 20 | | 5 |
| Ice Drumhead | 20 | | 5 |
| Hanson's | 25 | | 5 |
| Paris White Cos , best Cos Lettuce..... | 20 | | 5 |

MUSTARD.

| | Lb. Cts. | Oz. Cts. | Pkt. Cts. |
|----------------------------|-------------|-------------|--------------|
| White English | 50 | 10 | 5 |

MELON-MUSK.

Requires a moderately rich, light soil. Plant 6x6 feet, fifteen seeds to the hill, which must be thinned to three or four of the strongest plants when they have made their second leaves.

If by mail, add postage at the rate of 16 cents per lb.



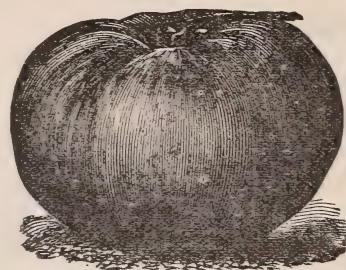
True Hubbard Squash.



St. Paul Tomato.



Skirring's Purple Top Swede Turnip or Rutabaga.



Gen. Grant Tomato.



Purple Top Strap-leaf Turnip.



Half Early Paris Cauliflower.

MELON-MUSK—Continued.

| | Lb. \$ | Oz. Cts. | Pkt. Cts. |
|--|-----------|-------------|--------------|
| Skillman's Fine Vatted , very early and sweet | 1 00 | 15 | 5 |
| Green Antmeg , good size and rich .. | 1 00 | 15 | 5 |
| Cassaba or Persian , large oblong, one of the best | 1 25 | 15 | 5 |
| Improved Canteloupe , large size, deeply ribbed, beautiful and delicious Melon; probably the best grown, though a little late | 1 25 | 15 | 5 |
| White Japan , very early, white skinned, orange flesh, one of the sweetest and best grown | 1 25 | 15 | 5 |
| Pomegranate , very fragrant and ornamental, but not edible | | 20 | 5 |

MELON-WATER.

If by mail, add postage at the rate of 16 cents per lb.

| | Lb. \$ | Oz. Cts. | Pkt. Cts. |
|--|-----------|-------------|--------------|
| Excelsior , new and magnificent; late, very large | 2 00 | 25 | 10 |
| Phinney's Early , safest Melon to plant in northern latitudes, ripens well in Minnesota | 1 25 | 15 | 5 |
| Mountain Sweet , good market variety | 1 00 | 15 | 5 |
| Mountain Sprout , old well-known favorite | 1 00 | 10 | 5 |
| Black Spanish | 1 00 | 15 | 5 |
| New Orange | 1 25 | 15 | 5 |
| Gypsy | 1 00 | 15 | 5 |
| Sculptured Seeded , or California | 1 25 | 20 | 5 |
| Peerless , or Ice Cream | 1 25 | 15 | 5 |
| Citron , for preserves | 1 25 | 20 | 5 |

NASTURTIUM, or INDIAN CRESS.

| | Oz. Cts. | Pkt. Cts. |
|--------------------|-------------|--------------|
| Tall | 15 | 5 |
| Dwarf | 15 | 5 |

OKRA, or GUMBO.

The young pods much used in soups and stews, and said to be very nutritious.

Sow at the usual time of planting all tender vegetables, in rows two feet apart and eighteen inches apart in the row.

| | Oz. Cts. | Pkt. Cts. |
|--------------------------|-------------|--------------|
| Dwarf Green | 10 | 5 |

ONION.

The success reported by planters of our Minnesota Onion Seed, warrants us in believing that we are now offering the best stock of Onion seed in the United States.

We grow strictly from selected Onions, not one being planted without passing through the hands of our superintendent.

Every variety in our store was sold last spring, and we start in with a clean stock of crop of 1880. Plant as early as the ground can be worked. Sow thinly in drills quarter of an inch deep, and one foot apart. Thin to three or four inches apart.

ONION—Continued.

Plant in deep, rich soil. Cultivate well, but do not stir the ground deep, or pull any earth about the roots. This crop can be grown on the same ground for a number of years.

If by mail, add postage at the rate of 16 cents per lb.

| | Lb. \$ | Oz. Cts. | Pkt. Cts. |
|---|-----------|-------------|--------------|
| Extra Early Red , earliest | 5 50 | 40 | 10 |
| Red Wethersfield , mild, flavored and productive | 4 50 | 40 | 10 |
| Yellow Danvers | 4 50 | 40 | 10 |
| White Portugal or Silver Skin | 4 00 | 30 | 10 |
| White Globe | 7 00 | 60 | 10 |
| Onion Sets , tops or bottoms. Price per bushel or quart, given on application. | | | |

PARSNIPS.

Culture same as Carrots, except that they must be planted in early spring.

Dig what is wanted for winter use, and pack in sand in cellar. They are not injured, but rather improved by frost, and those required for spring use may be left in ground when grown until wanted.

Do not plant in freshly manured land, as it causes them to grow branchy.

If by mail, add postage at the rate of 16 cents per lb.

| | Lb. \$ | Oz. Cts. | Pkt. Cts. |
|---|-----------|-------------|--------------|
| Long Smooth , or Hollow Crowned ... | 1 00 | 10 | 5 |
| Student | 1 00 | 10 | 5 |
| Long Sugar | 1 00 | 10 | 5 |

PARSLEY.

Seeds germinate slowly, and should be planted in early spring, soaking them for a few hours in warm water before sowing. Sow thickly, half an inch deep, and in rows one foot apart.

If by mail, add postage at the rate of 16 cents per lb.

| | Lb. \$ | Oz. Cts. | Pkt. Cts. |
|--|-----------|-------------|--------------|
| Myatt's Garnishing | 1 00 | 10 | 5 |
| Moss Curled | 1 00 | 10 | 5 |
| Fern Leaved , a very beautiful variety .. | 1 50 | 40 | 15 |
| Hamburg , or Turnip Rooted | 1 00 | 10 | 5 |

PEAS. First Early.

Our Peas are all our own growth, and cannot fail to give satisfaction.

For first early plant in warm light soil. For general crop a stronger soil inclined to clay is best. Plant in single or double rows and cover from two to four inches.

Sow in weekly succession, from earliest spring until June.

By planting first early, second early, and late, all at the same time, a fair succession may be kept up by one planting.

They are arranged in catalogue according to earliness, beginning with the earliest at the top of list and running down to the latest at bottom.

PEAS—Continued.

If wanted by mail, add for postage at the rate of 25 cents per quart.

| | Bush. \$ | Qts. Cts. | Pkt. Cts. |
|---|-------------|--------------|--------------|
| Carter's 1st Crop , good and very productive, 2 1-2 feet, smooth white Pea | 8 00 | 50 | 10 |
| Phil. Extra Early , the finest market Pea, and will give satisfaction anywhere, smooth white; 2 1-2 feet | 8 00 | 40 | 10 |
| Caractacus , early and productive, strong grower, smooth white; 2 1-2 feet | 6 00 | 30 | 10 |
| Tom Thumb , well-known garden pet, smooth white: 10 inches | 8 00 | 40 | 10 |
| Mutum in Parvo , dwarf as Tom Thumb, green wrinkled, an immense cropper and fine flavor .. | 6 00 | 30 | 10 |
| Laxton's Alpha , a wrinkled Pea, of fine flavor: 2 1-2 feet | 10 00 | 50 | 10 |
| Extra Early Dan O'Rourke , smooth white: 2 1-2 feet | 5 00 | 30 | 10 |
| Early Kent , well-known and popular for market, smooth white; 2 1-2 feet | 5 00 | 30 | 10 |
| McLean's Little Gem , dwarf, prolific, sweet, green wrinkled | 8 00 | 50 | 10 |
| McLean's Blue Peter , very dwarf, green wrinkled | 7 00 | 40 | 10 |
| McLean's Advancer , green wrinkled; 2 1-2 feet | 8 00 | 50 | 10 |
| Early Premium Gem , a fine dwarf Pea of the Little Gem type | 10 00 | 50 | 10 |
| Champion of England , best table Pea grown, green wrinkled; 4 feet .. | 6 00 | 30 | 10 |
| Blue Imperial , green wrinkled; 4 feet | 6 00 | 30 | 10 |
| Winona Dwf. White Marrow , a new marrow Pea, 18 inches, very prolific, large and handsome | 7 50 | 40 | 10 |
| Black Eye Marrow | 3 00 | 20 | 10 |

PEPPER.

Start plants in hot bed or in boxes in the house. Transplant when ground becomes warm, and danger from frost is past.

| | Oz. Cts. | Pkt. Cts. |
|---|-------------|--------------|
| Large Bell , or Blue Nose | 25 | 5 |
| Sweet Mountain , or Mammoth . This and the preceding used for stuffed pickles | 30 | 5 |
| Long Red , the old furnished red pepper | 25 | 5 |
| Cayenne , the Cayenne pepper of Commerce. | 30 | 5 |
| Red Chili , small bright red, used for Pepper-sauce | 30 | 5 |

PUMPKIN.

Grown mainly as a farm crop. Planted among corn or potatoes, or they may be planted alone, in hills eight feet apart each way.

If by mail, add postage at the rate of 16 cents per lb.

| | Lb. Cts. | Oz. Cts. | Pkt. Cts. |
|--|-------------|-------------|--------------|
| Large Cheese , the best variety for cooking purposes | 60 | 10 | 5 |
| Connecticut Field , very productive; largely grown for feeding stock .. | 15 | 10 | 5 |

RADISH.

Radishes require a light, rich, sandy soil. Sow in succession from earliest spring until September.

If by mail, add postage at the rate of 16 cents per lb.

| | Lb. Cts. | Oz. Cts. | Pkt. Cts. |
|--|-------------|-------------|--------------|
| Early Long Scarlet Short Top | 80 | 10 | 5 |
| Early Scarlet Turnip | 1 00 | 10 | 5 |
| Early White Turnip | 1 00 | 10 | 5 |
| Early Scarlet Olive | 1 00 | 10 | 5 |
| Yellow Summer | 1 00 | 10 | 5 |
| French Breakfast | 1 00 | 10 | 5 |
| White Naples , white with green top, medium in length | 1 25 | 10 | 5 |
| China Rose , winter. Sow in July and August | 1 25 | 15 | 10 |
| Black Spanish , winter. Sow in July and August | 1 00 | 10 | 5 |
| California Mammoth , winter. Sow in July and August | 1 50 | 25 | 5 |

RHUBARB.

Sow in April in drills and transplant into beds three feet apart each way, in following spring. Will be fit for use second or third year, and is the cheapest way to get a plantation started.

| | Oz. Cts. | Pkt. Cts. |
|-------------------------------|-------------|--------------|
| Linnaeus | 15 | 5 |
| Mammoth Victoria | 15 | 5 |

SALSIFY, or Vegetable Oyster.

A very wholesome and nutritious vegetable. It is cut in small pieces and cooked like peas. Sow in early spring, in drills fifteen inches apart, and thinned to six inches in the row. Frost does not injure the roots, and they may be treated same as Parsnips.

\$2 50 per Lb., 20 cts. Oz., 10 cts. Pkt.

SPINACH.

For summer use sow at intervals of two or three weeks from early spring to August.

If by mail, add postage at the rate of 16 cents per lb.

| | Lb. Cts. | Oz. Cts. | Pkt. Cts. |
|--|-------------|-------------|--------------|
| Round, or Thick-leaved Summer , for spring sowing. This Spinach is rapidly superceding all others. Will produce a most abundant crop, and is crisp and tender. Is now grown more largely than any other by eastern gardeners .. | 40 | 10 | 5 |
| Prickly , hardiest, and best for fall sowing | 50 | 10 | 5 |
| Savoy Leaved , a valuable summer sort | 75 | 10 | 5 |

SQUASH.

Plant as soon as the weather becomes settled and warm, the bush sorts in hills four feet apart each way, and the large growing ones eight feet apart each way.

Light, heavily manured soils are best suited to their growth.

If by mail, add postage at the rate of 16 cents per lb.

SQUASH—Continued.

| | Lb. \$ | Oz. Cts. | Pkt. Cts. |
|---|-----------|-------------|--------------|
| Yellow Bush Scallop , (summer) | 80 | 10 | 5 |
| White Bush Scallop , (summer) | 80 | 10 | 5 |
| Summer Crookneck | 80 | 10 | 5 |
| Winter Crookneck | 1 00 | 10 | 5 |
| Hubbard | 1 00 | 15 | 5 |
| Marblehead | 1 00 | 15 | 5 |
| Butman | 1 00 | 15 | 5 |
| American Turban | 1 50 | 20 | 5 |
| Mammoth Chili , for show at the fairs | 2 00 | 20 | 5 |
| Boston Marrow , good for early fall market, soft shell, big cropper, good for table and stock, and ought to entirely supplant the pumpkin as a farm crop | 1 00 | 15 | 5 |

TOBACCO.

| | Oz. Cts. | Pkt. Cts. |
|------------------------------------|-------------|--------------|
| Connecticut Seed Leaf | 30 | 10 |

TOMATO.

This vegetable now occupies a very prominent place, and its importance is yearly increasing.

Sow early in hot-bed, or boxes in the house, and when two inches high transplant into small pots or boxes, from which they can be planted in open ground when the weather becomes warm and danger from frost is past. Plant 4x4 feet.

| | Oz. Cts. | Pkt. Cts. |
|--|-------------|--------------|
| 100 Days , or Extra Early Smooth Red | 25 | 5 |
| Conqueror , earliest grown | 30 | 5 |

The above have but little merit, except earliness.

| | | |
|---|----|----|
| Hathaway's Excelsior , good sort | 30 | 5 |
| Trophy , best late | 30 | 10 |
| General Grant | 25 | 5 |

One of the best large early tomatoes.

| | | |
|--------------------------|----|---|
| Arlington | 30 | 5 |
| Yellow Plum | 30 | 5 |

TOMATO—Continued.

| | Oz. Cts. | Pkt. Cts. |
|---|-------------|--------------|
| Red Plum | 30 | 5 |
| St. Paul , another year's trial of this superb new Tomato places it far ahead of any competition. Its uniform large size, solidity and fine flavor will keep it in the front rank as a table or canning Tomato. It cans twelve pounds to the bushel more than the Trophy—cherry color. Its Minnesota origin is sufficient guarantee of its earliness | 50 | 10 |
| Aene . This new Tomato is one of the earliest and handsomest varieties yet introduced. The fruit is of a medium size, perfectly smooth and regular in shape, very solid, and a great bearer. Color quite distinct, being a dark red, with purplish tinge... .. | 30 | 5 |

TURNIP.

If by mail, add postage at the rate of 16 cents per lb.

| | Lb. Cts. | Oz. Cts. | Pkt. Cts. |
|--|-------------|-------------|--------------|
| Early Six Weeks | 50 | 10 | 5 |
| Early Flat Dutch , first crop | 50 | 10 | 5 |
| White Strap Leaf , excellent | 50 | 10 | 5 |
| Purple Top Strap Leaf , best for general crop | 50 | 10 | 5 |
| Large White Globe | 75 | 10 | 5 |
| Large White Norfolk | 50 | 10 | 5 |
| Yellow Aberdeen , hardy and good keeper | 75 | 10 | 5 |
| Orange Jelly , or Golden Ball , fine for table | 75 | 10 | 5 |

TURNIP—Swedish.

| | Lb. Cts. | Oz. Cts. | Pkt. Cts. |
|---|-------------|-------------|--------------|
| Skirving's Purple Top Swede , the best for field crop of all varieties we have tested | 50 | 10 | 5 |
| Carter's Imperial Hardy Swede , comes to us from England highly recommended, and on our grounds has proved one of the best | 50 | 10 | 5 |
| Sweet Russian , excellent table sort, and No. 1, for stock | 50 | 10 | 5 |

WILD RICE.

This valuable novelty is easily grown in ponds or streams.

It is beautiful in appearance, growing from 6 to 10 feet high.

Wild Ducks are very fond of it, and an acre of it will afford attraction and food for thousands of these fine game fowl during the autumn months.

The seed succeeds best when sown in autumn, during the months of September and October. We do not think it will do well sown in spring, and do not offer it until September, when all orders will receive prompt attention. Price \$3.00 per Bushel, \$1.00 per Peck.

Sweet, Pot, and Medicinal Herbs.

No garden is complete without a few herbs for culinary or medicinal purposes; and care should be taken to harvest them properly. This should be done on a dry day, just before they come in full bloom, then dried quickly and packed closely, entirely excluded from the air. Sow in spring, in shallow drills, one foot apart; and when well up, thin out or transplant to a proper distance apart.

Anise (*Pimpinellum Anisum*), cultivated principally for garnishing and for seasoning, like Fennel. Pkt. 5c.; oz. 15c.

Balm (*Melissa Officinalis*), principally used for making balm tea and balm wine. Pkt. 10c.; oz. 50c.

Basil, Sweet (*Ocimum Basilicum*). The leaves and tops of the shoots are the parts gathered, and are used for highly seasoned dishes, as well as in soups, stews, and sauces: a leaf or two are sometimes introduced into salads. Pkt. 10c.; oz. 50c.

Borage (*Borago Officinalis*). Excellent for Bees. Pkt. 5c.; oz. 25c.

Carraway (*Carum Carui*). Chiefly cultivated for the seed, which is used in confectionery and in medicine; in spring the under leaves are sometimes put in soups. Pkt. 5c.; oz. 15c.

Coriander (*Coriandrum Sativum*). Cultivated for garnishing, but more frequently for its seeds, which are used by confectioners. Pkt. 5c.; oz. 15c.

Dill (*Anethum Graveolens*). The leaves are used in soups and sauces, and to put along with pickles. Pkt. 5c.; oz. 15c.

Fennel (*Anethum Feniculum*). The leaves, boiled, enter into many fish sauces, and raw, form a beautiful ornament. Pkt. 5c.; oz. 15c.

Horehound (*Marrubium Vulgare*). Principally used for medicinal purposes. Pkt. 10c.; oz. 50c.

Hyssop (*Hyssopus Officinalis*). The leafy tops and flowers are gathered and dried for making Hyssop tea and other purposes. Pkt. 10c.; oz. 40c.

Lavender (*Lavendula Spica*). A popular aromatic herb. Pkt. 10c.; oz. 40c.

Marjoram, Sweet (*Origanum Majorana*). For seasoning. Pkt. 10c.; oz. 40c.

Rosemary (*Rosmarinus Officinalis*). An aromatic herb. Pkt. 10c.; oz. 50c.

Rue (*Ruta Graveolens*). Used for medical purposes, also frequently given to fowl for the croup. Pkt. 10c.; oz. 40c.

Saffron (*Carthamus Tinctorius*). Pkt. 5c.; oz. 15c.

Sage (*Salvia Officinalis*). The leaves and tender tops are used in stuffing and sauces. Pkt. 5c.; oz. 30c.; lb. \$3.00.

Savory, Summer (*Satureia Hortensis*). Used for seasoning. Pkt. 5c.; oz. 25c.

Thyme, Broad-Leaved (*Thymus Vulgaris*). For seasoning, etc. Pkt. 10c.; oz. 40c.; lb. \$4.00.

Tansy (*Tanacetum Vulgaris*). Pkt. 10c.; oz. 50c.

Wormwood (*Artemisia Absinthium*). Used for medical purposes; it is also beneficial to poultry, and should be planted in poultry grounds. Pkt. 10c.; oz. 50c.

A FEW FACTS ABOUT FOREST TREE CULTURE.

Plant seeds of Soft Maple and Elm before they dry. They ripen in June. Seeds of Ash, Box Elder, Butternut Walnut, and Basswood, may be planted in the fall, or kept safely for spring planting, by placing them upon the ground, in a dry place and covering with straw, and let remain through the winter.

A Bushel of Soft Maple - contains about 6,000 Seeds.

“ Box Elder - “ 10,000 “

“ White or Black Ash - “ 15,000 “

A Quart of Basswood - “ 3,500 “

To plant a Tree Claim 4x4 would require about 13,000 good seeds. Allowing the usual percentage for bad seed, and vermin, it would require about

2 1-2 Bushels Soft Maple for a 5 Acre Plantation.

1 1-2 “ Box Elder “ “

1 1-4 “ Ash “ “

5 Quarts Basswood “ “

European Larch must be planted in the fall, or early in the spring, before the buds start. The roots of all cone bearing trees should never be allowed to dry, as the sap is resinous, and will never recover its life after once dry.

The Cottonwood is best propagated by cuttings.

Cottonwood seed is not reliable in a majority of cases.

In planting a tree or cutting, it is highly important that the earth be packed close, so as to entirely exclude the air. Plant all trees a trifle deeper than they grew in forest or nursery.



Our Flower Seeds are imported in bulk direct from the most celebrated European growers, and packed by ourselves since December 1st, 1880, and are fresh and reliable. All free by Mail or Express.

ANNUALS.

| | Pkt. Cts. |
|---|--------------|
| Amaranthus, Cruentus , (Prince's Feather)..... | 5 |
| Alyssum, Sweet , hardy annual; flowers small and sweet, in clusters: 6 inches..... | 5 |
| Ageratum Mexicanum , blue; 1 foot..... | 5 |
| Tricolor , red, yellow and green foliage; 2 feet.... | 5 |
| Antirrhinum (Snapdragon) best and brightest mixed | 5 |
| Aster. The Aster now is a general favorite, and its popularity is on the increase. Give the Aster a deep, rich soil, and mulching with coarse manure is very beneficial. Plants may be grown in the hot-bed, cold-frame, or a seed-bed in the garden. The Aster transplants easily. Twelve inches apart is the proper distance for making a showy bed of the large varieties, and the dwarf kinds may be planted so that they touch. | |
| <i>Aster, Truffaut's</i> Peony-flowered Perfection —Large beautiful flowers, petals long; a little reflexed; 2 feet in height; mixed colors..... | 15 |
| <i>New Rose</i> —2 feet in height; robust, large flowers, petals finely imbricated and of great substance; one of the very best; mixed colors..... | 15 |
| <i>La Superbe</i> —Very perfect: almost a globe and beautifully imbricated; mixed colors..... | 10 |
| <i>Cocardeau</i> or <i>New Crown</i> —Two-colored flowers, the central petals being of pure white, sometimes small and quilled, surrounded with large, flat petals of a bright color, as crimson, violet, scarlet, etc.; 18 inches; mixed colors..... | 10 |
| <i>New Chrysanthemum-flowered Dwarf</i> —A desirable class, 1 foot in height; late, and valuable on this account, mixed color..... | 15 |
| <i>Washington</i> —The largest Aster we have ever known, mixed colors..... | 25 |
| Balsam—Camelia-flowered —French, double, perfect in form; mixed colors..... | 15 |
| <i>Rose-flowered</i> —French, double, mixed colors..... | 15 |
| Callieris —Mixed colors of every shade..... | 5 |
| Canna —Mixed varieties..... | 10 |
| Campanula—Canterbury Bell (<i>Speculum</i> .) Mixed colors..... | 5 |
| Candytuft —Purple..... | 5 |
| White..... | 5 |
| <i>Sweet-scented</i> —Pure white; slightly fragrant.... | 5 |
| <i>Dunnett's Extra Dark Crimson</i> | 5 |
| All the above colors mixed..... | 5 |

ANNUALS—Continued.

| | Pkt. Cts. |
|--|--------------|
| Celosia—Japan Cocksbomb —New and distinct..... | 10 |
| <i>Dwarf Varieties</i> —Mixed..... | 10 |
| Tall " "..... | 10 |
| Centaurea —Mixed..... | 5 |
| Centranthus —Mixed..... | 5 |
| Clarkia —Single Mixed..... | 5 |
| " Double "..... | 5 |
| Convolvulus Minor —All colors Mixed..... | 10 |
| Delphinium—Ajacish yacynthiflorum —Double Dwarf Rocket, mixed colors..... | 5 |
| <i>Elatum</i> —Bee Larkspur..... | 5 |
| Dianthus—Chinensis —Best double varieties mixed | 5 |
| <i>Imperialis</i> —Double Imperial Pink, mixed..... | 5 |
| Mixed seed of five best varieties..... | 5 |
| Gaillardia —Red and yellow..... | 5 |
| Gilia —Mixed..... | 5 |
| Linum | 5 |
| Lobelia —Mixed varieties for baskets..... | 10 |
| Lupins —Mixed varieties..... | 5 |
| Marigold —Tall varieties mixed..... | 5 |
| " Dwarf " "..... | 5 |
| Ice Plant | 5 |
| Dew Plant | 5 |
| Reseda Odorata —Sweet Mignonette, a well-known fragrant, little hardy annual; per oz. 20 cents... | 5 |
| Mirabilis Jalapa —Marvel of Peru, mixed colors... | 10 |
| Nemophila —Mixed..... | 5 |
| Nigella —Double blue..... | 5 |
| Pansy seed may be sown in the hot-bed or open ground; if sown in the spring, get it in as early as possible, so as to have plants in blossom during the early rains. Seed sown in a cool place in June or July, and well watered until up, will produce fall flowering plants. To have good flowers, the plants must be vigorous, and make a rapid growth. Young plants give the largest flowers. Old worn-out plants should be replaced. | |
| <i>Pansy King of the Blacks</i> —Almost coal black coming true from seed..... | 15 |
| <i>Emperor William</i> —New; fine, large flower; ultramarine blue with purple-violet eye..... | 25 |

ANNUALS—Continued.

Pkt.
Cts.

| | |
|---|----|
| <i>Dark Blue</i> —Very rich and constant | 15 |
| <i>Azure Blue</i> —Extra fine | 15 |
| <i>Light Blue</i> —Lovely shades of light, nearly sky blue | 15 |
| <i>Pansy Violet</i> —White border; somewhat resembling the fancy Geraniums | 20 |
| <i>Dark Purple</i> —Very fine | 25 |
| <i>Striped and Mottled</i> —Extra, and very showy | 20 |
| <i>Yellow Margined</i> —Beautiful color, with margin or belt of yellow | 15 |
| <i>Pure Yellow</i> —Generally true to color | 15 |
| <i>White</i> —Sometimes slightly marked with purple | 15 |
| <i>Odier or Large Eyed</i> —Dark spots on each petal and large eyes | 25 |
| Mixed seeds of above sorts | 15 |
| <i>Petunia</i> —Choicest mixed, from show flowers | 25 |
| <i>Double</i> —The seed we offer is the best to be obtained. The double Petunia bears no seed and but little pollen. Packet of 50 seeds | |
| <i>Blotched and Striped</i> | 10 |
| Phlox Drummondii. The Phlox Drummondii, for a brilliant mass of colors and a constant display, is not excelled by any other annual or perennial that we are acquainted with. It has every desirable quality for the purpose. The colors range from the purest white to the deepest blood purple or crimson. Seed may be sown in the open ground or in hot-bed or cold-frame. | |
| <i>Phlox Drummondii, Deep Blood Purple</i> | 10 |
| <i>Brilliant Scarlet</i> | 10 |
| <i>Large Blue</i> —White eye, the nearest to blue of the Phlox, but really a fine purple | 10 |
| <i>Flore Alba</i> —Pure white | 10 |
| <i>Chamois Rose</i> —Very delicate and fine | 10 |
| <i>Variabilis</i> —Violet and Lilac | 10 |
| All varieties mixed | 10 |
| <i>Grandiflora</i> —An improved annual Phlox, with flowers unusually large, round, and of great substance. Not as prolific as the old sorts | 20 |
| <i>Poppy</i> —Carnation—Double mixed colors | 5 |
| <i>Paeony flowered</i> | 5 |
| <i>Portulacca</i> —Fine mixed | 5 |
| Double rose flowered, mixed | 20 |
| <i>Ricinus</i> —Fine mixed | 10 |
| <i>Salpiglossis</i> —Mixed colors | 10 |
| <i>Salvia</i> —Roemeriana, scarlet | 10 |
| “ <i>Splendens</i> , very large | 20 |
| <i>Scabiosa</i> —Mixed | 5 |
| <i>Sensitive Plant</i> —Mimosa pudica | 5 |
| <i>Stock Ten Weeks</i> —New, largest flowering dwarf, mixed | 20 |
| <i>Verbena Hybrida</i> | 20 |
| <i>Zinna</i> —Choicest double mixed | 10 |

CLIMBERS.

| | |
|--|----|
| <i>Cobea Scandans</i> | 10 |
| <i>Convolvulus Major</i> —Morning Glory, white | 5 |
| <i>Incarnata</i> —Bright red | 5 |
| Blue | 5 |
| All the colors mixed | 5 |
| <i>Dolichos Lablab</i> (Hyacinth Bean,) a fine climber with purple and lilac flowers | 10 |

CLIMBERS—Continued.

Gourds and Cucumbers. The Gourds are a vigorous class of plants, with curiously formed and often strangely colored fruits. The foliage is abundant, leaves often curious, and useful for covering old trees, fences, arbors, etc. The culture is the same as required for squashes, melons, etc.

Pkt.
Cts.

| | |
|---|----|
| <i>Hercules' Club</i> —Large, long, club shaped | 10 |
| <i>Pear Formed</i> —Yellow and green, cream striped | 10 |
| <i>Orange</i> —The well-known Mock Orange | 10 |
| <i>Calabash</i> —The old fashioned Dipper Gourd | 10 |
| <i>Sugar trough</i> | 10 |
| <i>Maurandya</i> —Finest Mixed | 10 |
| <i>Ipomea Quamoclit</i> —Cyprus vine, mixed | 10 |
| <i>Sweet Peas</i> — <i>Scarlet Invincible</i> —A beautiful deep scarlet variety; lb. \$1.50; oz. 15 cents | 10 |
| <i>Peas Painted Lady</i> —Rose and white; per lb. \$1.50; per oz. 15 cents | 10 |
| <i>White</i> —Per lb. \$1.50; per oz. 15 cents | 10 |
| All colors mixed, per lb. \$1.00; oz. 10 cents | 5 |
| <i>Thunbergia</i> —Mixed colors | 15 |
| <i>Tropaeolum</i> —Canary flower | 15 |

EVERLASTINGS.

| | |
|--|----|
| <i>Acroclineum Roseum</i> —Rose color | 5 |
| <i>Album</i> —Pure white | 5 |
| Both colors mixed | 5 |
| <i>Gomphrena</i> —Globe Amaranth, mixed | 5 |
| <i>Helichrysum, Monstrosum</i> —Mixed colors | 10 |
| <i>Rhodanthe Maculata</i> —Mixed colors | 10 |
| <i>Xeranthemum</i> —Mixed colors | 10 |

ORNAMENTAL GRASSES.

| | |
|--|----|
| <i>Agrostis Pulchella</i> —Elegant | 10 |
| <i>Briza, Maxima</i> —Quaking grass | 5 |
| <i>Gracilis</i> —Very desirable | 5 |
| <i>Bromus, Brizaeformis</i> | 5 |
| <i>Lagurus, Ovatus</i> —Hare's tail | 5 |
| <i>Stipa, Pennata</i> —Feathered grass | 15 |

PERENNIALS.

| | |
|--|----|
| <i>Aquilegia</i> —Columbine, fine mixed | 10 |
| <i>Carnation Pink</i> —English seed | 25 |
| <i>Piecotee Pink</i> —English seed | 25 |
| <i>Digitalis</i> —Foxglove, mixed | 5 |
| <i>Hollyhock</i> —Double, all colors | 10 |
| <i>Sweet William</i> —Perfection, double | 10 |
| <i>Wallflower</i> —Fine mixed | 20 |

GLADIOLUS.

The Gladiolus is the most beautiful of all the summer flowering bulbs, and is fast becoming the most popular. The flowers are of every shade of color, brilliant and lasting. A bed of Gladiolus in full bloom is the grandest thing in the floral kingdom.

We have thrown all our fine named sorts together, and have the best mixed lot of these bulbs ever offered.

Per 100, \$5.00; per doz. \$1.00.

DRY FLOWERS

AND

GRASSES.

We offer a choice assortment of Everlasting Flowers, Grasses and Immortelles.

These will be sent free by mail or express at prices named. They are made up neatly in small bunches, all in separate colors, except where mixed is specified.

With these you can make up beautiful Bouquets, Wreaths or Crosses for winter decoration.

French Immortelles. White, Red, Green, Orange and Rose. Each color 10 cents per bunch.

Helychrysum. Mixed colors. 10 cents per bunch.

Stipa Pennata. (Feather Grass.) White, Green, Red, and Rose. Each color 25 cents per bunch.

Florida Moss. 35 cents per pound.

Gomphrena. Mixed colors. 25 cents per hundred.

Pampas Grass Plumes. Large and fine, all over 2 feet. White, 60 cents each. Pink, Green, Yellow, Scarlet or Purple, 70 cents each.

Erianthus Ravenae. 12 stem, assorted colors, 60 cents.

Sea Oats. 12 stems. Natural color. 20 cents.

" " 12 stems. Assorted colors. 30 cents.

Grass, Bouquet. Very fine. 15 cents to 50 cents each.

Agrostis Nebulosa. Natural color. 10 cents per bunch.

" " Assorted colors. 15 cts. per bunch.

Briza Maximra. Natural. 10 cents per bunch.

" " Pure White. 15 cents per bunch.

" " Colors. 10 cents per bunch.

" **Media.** Natural. 10 cents per bunch.

" " Pure White. 15 cents per bunch.

" " Colors. 15 cents per bunch.

" **Minor.** Natural. 10 cents per bunch.

" " Pure White. 15 cents per bunch.

" " Colors. 15 cents per bunch.

Bromus Brizaefomis. Natural. 10 cents per bunch.

" " Colors. 15 cents per bunch.

" " Bleached. 15 cents per bunch.

Lagurus Ovatus. Natural. 10 cents per bunch.

" " Pure White. 15 cents per bunch.

" " Colors. 15 cents per bunch.

CHRISTMAS TREES.

By freight or express at purchaser's risk and expense. C. O. D. shipments declined.

Fine Shapely Balsam Fir, or Norway Spruce—All sizes, from 25 cents to \$5.00.

We make a specialty of this, and furnish nothing but good trees.

Nursery-Grown Spruce—15 to 20 ft. high. For churches and large halls. \$5.00 each.

Nursery-Grown Spruce—10 to 15 ft. high. \$3.00 each.

" " " —8 to 10 ft. high. \$2.00 each.

Forest trees at much lower rates.

Enclose the amount you wish to invest, and you will get just as good a tree as if you were here to select.

They go safely by freight or express. Order early so as to prevent disappointment.

Lycopodium, or Bouquet Green—(Sometimes called Princes Pine.) This is the best green for decorating churches, halls, or private rooms, for the holidays. It is a natural bright green, very enduring in color, and does not drop from the stem when dry. 20 cents per pound; \$3.00 per barrel of 20 pounds.

Sample mailed on application.

FERTILIZERS.

Peruvian Guano—25 cents per pound.

Whale Oil Soap—25 cents per pound.

Bone Dust—20 cents per pound; \$4.00 per bag of 100 pounds.

These must be sent by freight or express.

FIELD SEEDS.

Quotations Subject to Market Changes.

In all cases, sacks are charged extra, at the rate of 25 cents each, unless otherwise noted.

WHEAT.

Scotch Fyfe. Of our own growth on timber land. It is pure and clean, grading extra No. 1. Price per bushel and sample given on application.

Blue Stem. This is a new wheat, with decided marks to distinguish it from any other. It is a strong grower, stands up well, and yielded with us the past season five bushels per acre more than any other wheat we grew under the same culture. It is bald, hard as the Fyfe, with larger berry. Without doubt a valuable acquisition. Sample sent on application.

Price per bushel, \$2.50.

SEED CORN.

This is all Minnesota grown, and carefully cured.

It is sold under all circumstances subject to test BEFORE PLANTING, when if it fails to grow, it can be returned at our expense, and the money will be refunded. We test every lot of Seed Corn monthly, and do not intend to send out a bushel of poor seed.

North Star Yellow Dent. Still in the field as a candidate for public favor, and each year adds to its popularity. It is not recommended for latitude much north of St. Paul, but here it does well; our best farmers pronouncing it the best and most productive Field Corn they ever grew. It is a perfectly pure Yellow Dent, red cob, long kernels, and very handsome.

Per bushel, \$2.00.

White Dent. A large eared early Dent Corn.

Per bushel, \$2.00.

King Philip. An early productive, eight-rowed flint corn. Ears long, tipped with red, and usually two on a stalk. Good for sod planting, or for latitudes where Dent Corn is not reliable.

Per bushel, \$2.00.

Yellow Dutton. Similar to King Philip, but a little earlier, the ears shorter, and all bright yellow.

If anything, better for sod and the extreme north.

Per bushel, \$2.00.

Squaw Corn. Our original stock seed was procured from Manitoba. It is without question the earliest field corn known, and will produce a fair crop.

The stock offered is mottled, all colors, just as grown by the northern Indians.

Per bushel, \$4.00.

Fodder Corn. This is surplus stock of sweet corn, sold for planting and cutting up green for stock.

SEED CORN—Continued.

Sow broadcast three bushels per acre, or half that quantity, in drills eighteen inches apart.

Per bushel, \$2.50.

Broom Corn. This crop can be made to pay in the northwest on any good corn land.

Per bushel, \$4.00

MINNESOTA EARLY AMBER SUGAR CANE.

This crop is now an assured success, and needs no encomiums from us. It is the acknowledged king of all the Chinese canes. We were the original introducers of this variety, and our customers can depend on getting headquarters seed.

Per pound, by mail, 40 cents.

“ “ express or freight, 25 cents.

Liberal terms to dealers and large planters.

BUCKWHEAT.

Market price.

FIELD PEAS.

Canada Golden Vine. The white field-pea of the east. Very productive, and excellent food for hogs, horses or poultry. It should be a staple crop in all sections where Indian Corn is not reliable.

Per bushel, \$1.50.

Blackeye Marrowfat. Well-known strong growing pea.

Per bushel, \$2.50.

SUNFLOWER.

This is now being grown quite extensively on the prairies for fuel and windbreak. The seed is excellent food for fowls, and the plant is said to possess strong disinfectant qualities, protecting against malaria and fevers in new countries.

Plant same as corn, two pounds per acre.

| | | |
|---------------------------------------|-----------|-------------|
| | By Mail. | By Express. |
| Common Black Seed, per lb..... | 40 cents. | 25 cents. |
| Mammoth Russian, “50 “ | “ | 35 “ |

GRASS SEEDS.

The grass crop is the most important one, and of more money value than any other grown in the United States.

GRASS SEEDS—Continued.

The cultivated grasses go far to make up this value, and their planting cannot be too strongly urged.

The formulas here given are the result of practical experience, and will be found valuable to the inexperienced.

For pasture on uplands—

| | | |
|------------------|-----------|-----------------------|
| Timothy | 3 quarts. | } 14 quarts per acre. |
| Red Clover | 1 " | |
| Blue Grass | 8 " | |
| Red Top | 2 " | |

Or—

| | | |
|---------------------|-----------|-----------------------|
| Timothy | 3 quarts. | } 14 quarts per acre. |
| Orchard Grass | 2 " | |
| Blue Grass | 6 " | |
| Red Top | 3 " | |

Or—

| | | |
|------------------|-----------|-----------------------|
| Timothy | 4 quarts. | } 14 quarts per acre. |
| Red Clover | 2 " | |
| Blue Grass | 8 " | |

For pasture on low lands—

| | | |
|---------------|-----------|-------------|
| Timothy | 4 quarts. | } Per acre. |
| Red Top | 6 " | |

For Hay on uplands.

| | | |
|------------------|-----------|-------------|
| Timothy | 5 quarts. | } Per acre. |
| Red Clover | 2 " | |

Timothy, alone, 6 quarts per acre.

Red Clover, alone, 5 quarts per acre.

For Hay on low lands.

| | | |
|---------------|-----------|-------------|
| Timothy | 4 quarts. | } Per acre. |
| Red Top | 6 " | |

Timothy alone, 6 quarts per acre.

Red Top alone, 10 quarts per acre.

In the above formulas it must be borne in mind that Blue Grass, Red Top and Orchard Grass are chaffy seeds, weighing only fourteen pounds to the bushel, which accounts for so large a number of quarts per acre in each formula containing these seeds, as the relative number of seeds in a bushel is much smaller than of the clean heavy seeds.

It is not a good plan to drill these seeds in with wheat, as they are covered too deep, and not one in ten ever germinates.

The seeder attachment should be placed behind the hoes on drill or broadcast seeder, so that the seed is not covered by them, or the seed may be sown by hand after the wheat is sown; in either case, one light harrowing, or rolling will cover the seed sufficiently.

Clover. Medium Red. Market price.

" Mammoth, or Sapling. Market price.

" White Dutch. 30 cts. per lb., \$15.00 per bushel.

" Alsike. 30 cts. per lb., \$15.00 per bushel.

" Alfalfa, or Lucerne. 30 cts. per lb., \$15.00 per bushel.

Timothy. Market price.

Blue Grass. \$2.00 per bushel.

Orchard Grass. \$3.00 per bushel.

Red Top. \$1.50 per bushel.

Hungarian. Market price.

GRASS SEED—Continued.

Millet. Market price.

In lots of 5 bushels and upwards, of Blue Grass, Orchard Grass or Red Top, no charge for sacks, and special quotations will be given when requested.

LAWN GRASS.

Central Park Mixture. This mixture is from the formula used by the commissioners in charge of Central Park, New York.

It is composed of a choice selection of grasses of neat compact habit, and will produce a fine lawn.

Per quart, 25 cents; per bushel, \$4.00.

Second quality, fine mixed, qt. 20 cts., bushel, \$3.00.

No charge for sacks.

HOW TO MAKE A LAWN.

The first thing to do is to reduce the grounds to the required grade. Then if the top soil has been removed, or the low places filled with poor soil, it must have a covering of at least six inches of good, rich soil, the richer the better. Drains should be put in where necessary, as standing water on any part of the lawn will ruin it. This done, plow and harrow until perfectly level and the soil is thoroughly pulverized. Seed may now be sown at the rate of five bushels per acre, and lightly harrowed in and rolled. Start the lawnmower as soon as the first growth is three inches high, and cut every week until October.

If the seed is sown in early spring it will produce a good lawn by August.

For small plats hand work must take the place of the plow and harrow.

After the ground is prepared the cost of a really superior lawn from seed, will vary from \$15.00 to \$20.00 per acre, while it cannot be sodded for less than two hundred dollars; and the lawn grown from seed is much the best and most enduring.

FOREST TREE SEEDS.

The culture of Forest Trees is fast assuming great importance.

Our western prairies are intended for trees. Trees will grow on them all. For fuel, for shelter; for profit; for pleasure; it is your duty to plant trees. The rich prairie country of our western empire, will never develop its strength or fruitfulness, until sheltered by growing trees.

We have in stock properly preserved through the winter for spring planting, the following tree seeds:

Box Elder, or Ash Leaved Maple. A hardy, rapid growing tree. Will thrive in a variety of soils, and endures the severest weather without injury.

Plant from earliest spring until corn planting time. If the ground is wet cover lightly, if dry, cover as you would corn.

Per bushel, \$4.00. Per quart, free by mail, \$1.00.

White Ash. A well known and valuable tree, a rapid grower and hardy.

Plant same as Box Elder.

Per bushel, \$4.00

Per quart, free by mail, \$1.00.

FOREST TREE SEEDS—Continued.

Black Ash. A hardy, rapid growing tree. While young is much used for hoop poles.

Per bushel, \$4.00; per quart, by mail, \$1.00.

Linden, or Bass Wood. Justly celebrated for a shade and ornamental tree. It is hardy in our soil and climate, and when in bloom affords excellent bee pasture. The wood is soft and clear, and much used in cabinet work.

Per quart, by express, \$1.00.

Per quart, free by mail, \$1.15.

[NOTE.—The Bass Wood Seeds may be expected to require two years before all are germinated. They frequently come quite freely the second year after planting.]

Soft Maple. This seed cannot be kept until spring in a state to grow. It must be planted soon after

FOREST TREE SEEDS—Continued.

ripening, which, in this latitude, is from 1st to 15th of June.

Correspond then for prices.

EVERGREEN TREE SEEDS.

Evergreen seeds should be sown in light, rich soil, and the beds partially shaded with brush or lath screens for the first year. Larch seeds require the same treatment as Evergreens. At the following prices free by mail:

| | Oz. | Lb. |
|-----------------------------|-----|------|
| European Larch | 35 | 2 75 |
| Norway Spruce | 35 | 2 25 |
| Balsam Fir | 35 | 3 00 |
| Scotch Pine | 35 | 2 75 |
| Austrian Pine | 35 | 2 75 |
| Arbor Vitæ | 50 | 5 00 |

USEFUL TABLES.

Plants upon an Acre of Ground.

| Distance apart. | No. of Plants. |
|------------------------------|----------------|
| 6 inches by 6 inches..... | 154,240 |
| 1 foot by 1 foot..... | 43,560 |
| 1 1-2 foot by 1 1-2 foot.... | 19,360 |
| 2 feet by 1 foot..... | 21,780 |
| 2 feet by 2 feet..... | 10,890 |
| 3 feet by 2 feet..... | 7,260 |
| 3 feet by 3 feet..... | 4,840 |
| 4 feet by 4 feet..... | 2,623 |
| 5 feet by 5 feet..... | 1,740 |
| 6 feet by 6 feet..... | 1,210 |
| 8 feet by 8 feet..... | 682 |
| 10 feet by 10 feet..... | 425 |

Quantity of Seed Usually Sown on One Acre.

| | About. |
|---------------------------------------|--------|
| Dwarf Beans, in drills 1 to 1 1-2 bu. | |
| Pole Beans, in hills8 to 12 qts. | |
| Early Peas, in drills1 1-2 bu. | |
| Marrowfat Peas, in drills....3 bu. | |
| Corn, in hills.....4 to 6 qts. | |
| Beet, in drills.....4 to 5 lbs. | |
| Carrot, in drills.....2 to 3 lbs. | |
| Cucumber, in hills.....1 to 2 lbs. | |
| Onion, in drills.....3 to 4 lbs. | |
| Parsnip, in drills.....4 to 5 lbs. | |
| Radish, in drills.....6 to 8 lbs. | |

| | About. |
|---|--------|
| Spinach.....8 to 10 lbs. | |
| Squash, in hills.....2 lbs. | |
| Salsify, in drills.....5 to 6 lbs. | |
| Sweet Corn (for soiling).....2 to 3 bu. | |
| Turnip.....1 lb. | |
| Broom Corn, in hills.....2 qts. | |
| White Clover, alone.....6 to 12 lbs. | |
| Blue Grass, alone, (for lawn)....4 bu. | |
| Rye Grass, alone.....1 bu. | |
| Orchard Grass.....1 to 2 bu. | |
| Mixed Lawn Grass.....3 to 5 bu. | |
| Buckwheat.....1-2 bu. | |
| Flax Seed.....20 qts. | |

SEEDS REQUIRED FOR A GIVEN NUMBER OF PLANTS, ETC.

| | |
|--|-------------------------------|
| 1 oz. Asparagus will produce about..... | 500 plants. |
| 1 oz. Broccoli, Cabbage, Cauliflower, Egg Plant, Kale, Tomato, Leek or Pepper..... | 3000 plants. |
| 1 oz. Celery, Endive, Lettuce, will produce about..... | 6000 plants. |
| 1 oz. Okra, or Spinach, may be allotted for every..... | 100 feet of row. |
| 1 oz. Beet, Onions, Radish, or Salsify, may be allotted for every..... | 175 feet of row. |
| 1 oz. Carrot, Parsley, Parsnip, or Turnip, may be allotted for every..... | 200 feet of row. |
| 1 oz. Cucumber, is sufficient for..... | 50 hills. |
| 1 oz. Muskmelon, is sufficient for..... | 50 hills. |
| 1 oz. Watermelon, is sufficient for..... | 40 hills. |
| 1 oz. Pumpkin or Squash, is sufficient for..... | 20 hills. |
| 1 qt. Field Pumpkin, is sufficient for..... | 200 to 300 hills. |
| 1 qt. Dwarf or Bush Beans, is sufficient for..... | 200 feet of row or 300 hills. |
| 1 qt. Pole Beans, is sufficient for..... | 100 to 200 hills. |
| 1 qt. Peas, is sufficient for..... | 150 to 200 feet of row. |

CLUB INDUCEMENTS.

For all orders of Vegetable or Flower Seeds, in *packets*, we make the following liberal offer, whether ordered by Clubs or single parties:

| | |
|---|--------|
| Parties remitting \$1.00 may select Seeds, in packets, at Catalogue prices, amounting to..... | \$1.15 |
| “ “ 2.00 “ “ “ “ “ “ | 2.35 |
| “ “ 3.00 “ “ “ “ “ “ | 3.65 |
| “ “ 4.00 “ “ “ “ “ “ | 4.95 |
| “ “ 5.00 “ “ “ “ “ “ | 6.25 |
| “ “ 10.00 “ “ “ “ “ “ | 13.00 |
| “ “ 15.00 “ “ “ “ “ “ | 20.00 |
| “ “ 20.00 “ “ “ “ “ “ | 27.00 |

Upon receipt of either amount, the Seeds will be sent FREE of postage. The above offer does not include Seeds by the oz., lb., pt. or qt.

Begin early, make up Clubs, and save a good percentage.

Every packet filled by ourselves, from seed grown the present season. Not an ounce of old seed in our entire stock.

TABLE OF WEIGHTS AND MEASURES.*No. of Pounds Per Bushel, recognized by Laws of the United States.*

| | | | | |
|--------------------|---------------------|-----------------------|------------------------|-----------------------|
| Wheat60 | Rye.....56 | Timothy Seed...45 | Peas60 | Hungarian Grass |
| Oats.....32 | Irish Potatoes...60 | Blue Grass Seed ..14 | Buckwheat48 | Seed48 |
| Barley.....48 | Sweet "50 | Red Top Seed14 | Hemp Seed44 | Top Onion Setts ...28 |
| Corn, Shelled...56 | Beans60 | Orchard Grass Seed 14 | Onions.....57 | Bottom Onion Setts 35 |
| Corn, in Ear....70 | Clover Seed60 | Flax Seed56 | Millet Grass Seed ..48 | |

PRICE LIST

OF THE

Planet, Jr. Seed Drills,**Planet, Jr. Wheel Hoes,****Planet, Jr. Horse Hoes,****Firefly Wheel Plows,**

&c., &c., &c.

FOR THE SEASON OF 1881

They will appear handsomer in design, better in finish, and more *ingenious in construction*.

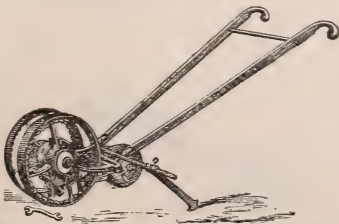
They are now a necessity to every one having a vegetable garden, every Farmer growing root crops, every one growing Cabbage and Tomato Plants from seed in drills, every Nurseryman, Florist, Small-Fruit Grower, and Onion Grower.

The coming season will be one of higher prices for all kinds of vegetables and truck, and will place these tools within the reach of all: and to be able to meet competition, and to pursue his business profitably, every Gardener and Trucker must have one.

The Improved Planet, Jr. Garden Drills

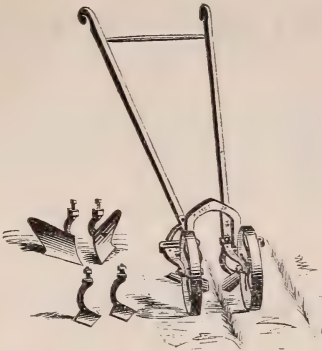
Sow with accuracy and ease to the operator, and at any exact thickness, and at any depth he may desire, all the following seeds:—

CELERY, TOBACCO, THYME, SAGE, SAVORY, SWEET MARJORAM, LETTUCE, TURNIPS,
 RUTABAGA, BROOM CORN, TOMATO, LEEK, CABBAGE, RADISH, SORGHUM,
 PEPPER, SALSIFY, SPINACH, ONION, OSAGE ORANGE, PEAS,
 RICE, PEAR, BEETS, PARSNIP, BEANS, CORN,
 APPLE, CHERRY, COTTON.

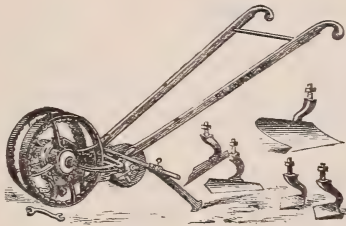


The Planet, Jr. No. 2 Drill. No hoeing attachment.

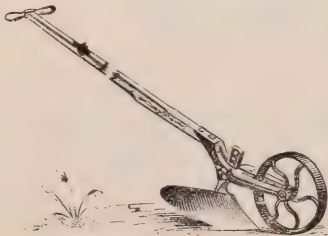
The hopper revolves with the carrying wheels, in all sizes of the Planet Drill, thus avoiding complicated stirring devices, while preventing clogging, and insuring a regular dropping of all the numerous varieties of garden seeds, and without the risk of splitting or injuring them. Regularity of depth, and evenness of covering, both of vital importance, are insured by the position and arrangement of the plow. A self-acting marker, a self-cleaning plow, and absence of all gearing and agitators, leave these drills without a rival in durability, simplicity and ease of management. The Planet Jr. No. 2 holds 2 1-2 qts. Price, \$12.00.



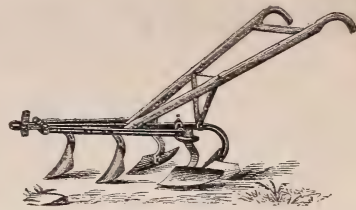
The Planet, Jr., Double Wheel Hoe, Wheel Plow and Cultivator will do the work of five to ten men with hand-hoes among Market, Garden and Root Crops, and small Nursery Stock, &c., finishing most perfectly *both sides of the rows at once*. The wheels can be set two, six or ten inches apart. It has *three pairs* of hoes, of different size, set and shape, capable of almost every variety of work in drilled crops. It cuts from six to sixteen inches wide, throwing to or from the row, as desired. In addition to working ordinary garden crops in drills, it is particularly adapted to hoeing young Nursery Stock, Rice and Broom Corn, and Tobacco, Cotton, Roots, &c., on leveled ridges. Price, \$10.00.



The Planet, Jr., Garden Drill, Wheel Hoe, Wheel Cultivator and Wheel Plow Combined possesses nearly all the excellences of the separate machines. An admirable Seed Sower, it becomes an excellent Wheel Hoe by removing one bolt; the two pairs of different steel hoes, with shovel plow and sub-soiler, being capable of performing, thoroughly, all the ordinary hoeing and working of drilled crops with the greatest ease and rapidity. No garden, however small, should be without one. It is also especially intended and adapted for the sowing and cultivation of onions as a field crop. Holds 1 qt. Price, \$14.00.



Firefly Hand Hoe and Plow. It can be quickly adjusted to work shallow for hoeing, deep and narrow for cultivating, and deep and wide for plowing. It has a polished and tempered steel mold-board, and is finished in our best style. Price, \$4.00.



The Planet, Jr., Combined Horse Hoe and Cultivator. This machine combines in one tool, the valuable qualities of **The Cultivator, The Wheel Hoe and The Plow**. It is made with wrought iron frame and standards, and tempered and polished cast steel blades; every part being constructed in the very best manner, and finished in the best style.

The side teeth are adjustable to throw the earth to or from the row. Each implement is furnished with two extra teeth, by which it is easily converted to a plain, five-tooth cultivator.

We have used these cultivators on our farms for the past four years, and pronounce them the most valuable combination of one horse cultivating implements ever made. Price, \$12.00.

Ladies' and Children's Garden Tools. Ladies' and Children's Garden Tools, useful, handy and small. Put up in neat boxes, 11 in. long by 3 wide. No. 1, extra polish, \$1.25; by mail prepaid,\$1 50

PRUNING SHEARS.

Wiss Pruning Shear. For Vineyard and other close pruning, where an instrument that cuts well on the point is required, this will be found the most desirable, as well as the most durable Shear made.

No. 1, Handle 5 inches, knife edge, 3 inches in length. Price, each \$1.25; by mail, prepaid, \$1.50.



Elastic Plant Sprinkler is made with a flat bottom, and perforated detachable brass top. Is valuable for Window Gardening, Bouquet Sprinkling, Dampening Clothes, &c. Price, by mail, prepaid, \$1.50.

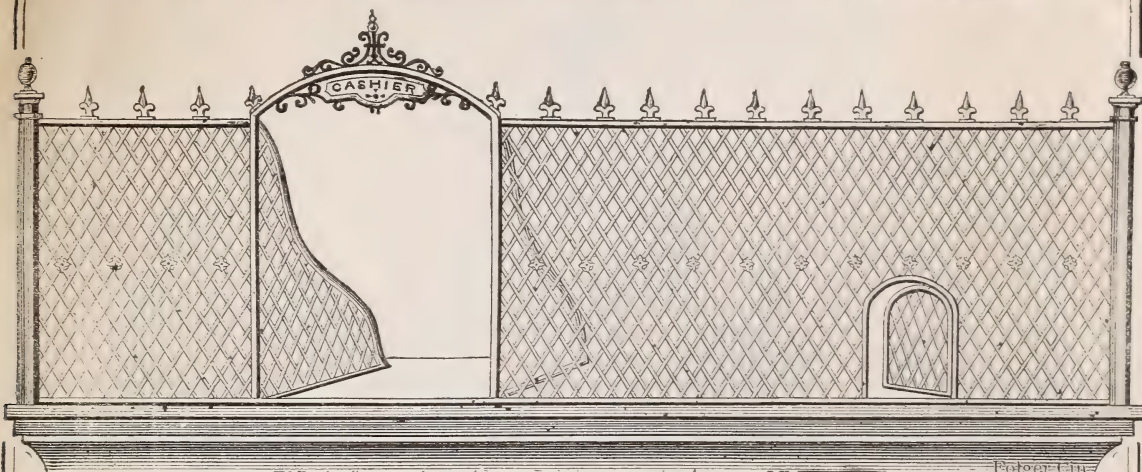


Hand Weeder. By mail, 50 cts.

ORDER SHEET FOR

| O. | NAME OF SEED WANTED. | AM'T. | No. | NAME OF SEED WANTED. | AM'T. |
|----|----------------------|-------|-----|----------------------|-------|
|----|----------------------|-------|-----|----------------------|-------|

St. Paul Wire Works.



BANK, OFFICE AND COUNTER RAILING.

All modern banks and offices are now using this rail. It is open and cheerful in appearance, and does not obstruct the light or air.

It affords the safest protection against robbers of any style of railing. We make it of heavy crimped wire, with channel iron frame and pickets on top. For banks the rail should be from thirty to thirty-six inches in height, for perfect protection. Make a diagram of counter, with location of cash holes or doors, and also where O. G. wings are needed.

Painted green or dark brown, with bronze finish, and packed for shipment.

PRICES :

| | |
|---|--------|
| 12 to 15 $\frac{1}{2}$ inches high, per square foot | \$1 25 |
| 16 to 23 " " " " | 1 00 |
| 24 to 36 " " " " | 80 |

EXTRAS—BESIDES MEASURE :

| | |
|--|-----------------|
| Cash Holes, each | 2 00 |
| Cash Holes, each, with door and lock | 5 00 |
| O. G. Wings or projections, each | 2 50 |
| Square Return Wing | 2 00 |
| Doors, according to size | \$5 00 to 10 00 |
| Extra work on curves | 3 00 to 5 00 |

Estimates given on any length, form or height of office railing.

MISCELLANEOUS :

Wire Chairs, for porches, lawns or cemetery, neat, strong and comfortable, \$6 00 each.
 Wire Settees, two seat 8 00 each.
 " " three seat 10 00 each.
 Tete-a-Tete, two seat 10 00 each.
 Moss Baskets 25 to 50 cents each.
 Stove Guards: made to go entirely around a stove, to keep children from danger: prices vary according to size. Arches and Fences for cemetery: Trellises, all sizes: Sand and Coal screens: Wire Signs, for top of buildings, or to suspend across the street: Ox and Dog Muzzles: Broilers: Wire Cloth for mosquito screens: Mocking Bird, Breeding and Canary Cages,—in brass, bright, or painted wire.

Prices as low as good goods can be manufactured. Cash must accompany orders from unknown correspondents. Address,

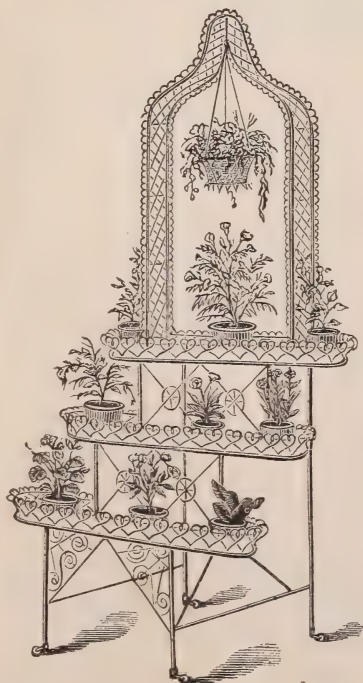
ST. PAUL WIRE WORKS,

Corner Fourth and Robert Sts., St. Paul, Minn.

T. M. METCALF, Proprietor.



No. 91.—Square Stand, 6 feet high, 40 inches wide, 30 inches deep, \$13.00.

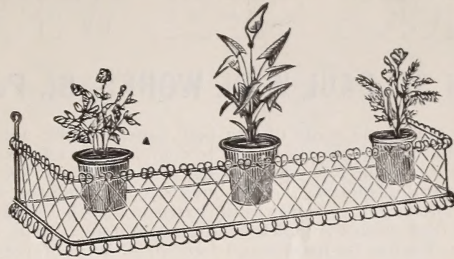


No. 90.—Six ft. high, 39 in. shelves 29 in. deep, \$8.00.

Our Flower Stands are all of superior workmanship, neat, strong and attractive. Finished in green or brown and bronze, they are an ornament to any parlor.



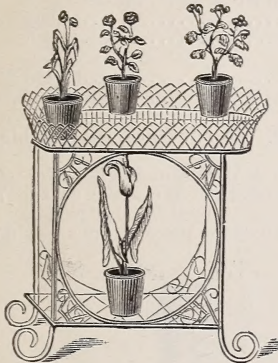
No. 82.—A very popular Half-Round Stand, 6 ft. high, 4 ft. long, 31 in. wide, \$10.00.



WINDOW SHELF.

| | | | |
|-------------------|--------------|-------------|---------|
| 2 ft. 9 in. long, | 4½ in. high, | 6 in. wide, | \$2.00. |
| 3 ft. | 4½ in. | 7 in. | 2.50. |
| 3 ft. 4 in. | 4½ in. | 7 in. | 3.00. |

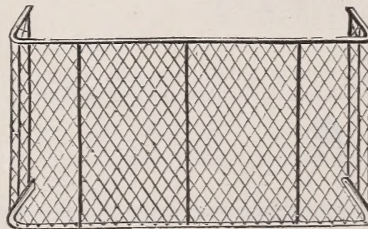
Any other size made to order.



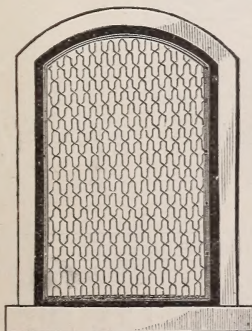
No. 594.—28 in. high, 28 in. long, 18 in. wide,
\$5.00.



No. 608.—2 ft. 8 in. high, 2 ft. 9 in. long, 18 in.
deep, \$4.00. A very popular little stand.
With Arch and Basket, \$5.50.

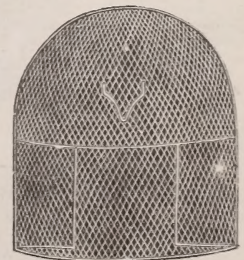


Fender for stove or open grates. Very useful to keep children from fire or sparks from the floor. \$8.00.



WINDOW GUARDS.

Made of heavy crimped wire, with iron frame. Very useful for cellar or kitchen windows, or for any window liable to be broken. 35 cents per square foot.



SPARK GUARDS.

For open grates, to keep sparks from floor;
22x26 in. lined with wire cloth, \$3.50.
22x26 in. unlined, 2.50.
All sizes made to order, at reasonable rates.

SEDGWICK'S STEEL WIRE FENCE.

Office of ST. PAUL WIRE WORKS, St. Paul, Minn.

This fencing, as its name implies, is made of the best annealed steel wire. The margin wire, i. e. top and bottom wires, run nearly straight, and are No. 9, which is common size telegraph wire. The body wires are No. 13. The breaking strain of No. 9 is about 2,500 pounds, and of No. 13 about 800 pounds.

We are now making two sizes of mesh as seen by our Price List, and the widths are there noted. We make narrower fence to order. The measure of the mesh is the extreme length and breadth of the opening, and a postal card will not go through a five inch mesh without touching at the four corners.

Our 4x7 mesh takes two No. 9 wires for margin and two No. 13 wires for every 4 inches height, and our 5x8 inch mesh takes two No. 13 wires for each five inches in height.

Our standard farm fence is 5 inch mesh and 57 inch height, and is made of two No. 9 wires, breaking strain 2,500 lbs. each..... 5,000
And Twenty-three No. 13 wires, breaking strain 800 lbs. each 18,400

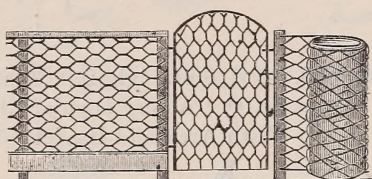
Total strength.....23,400 lbs.

No single wire is expected to break with less than 800 pounds strain, and the wire will break before the twist will slip.

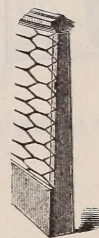
52 inch fence, 5 inch mesh, is a very good farm fence; 47 inch, 5 inch mesh, is a fair fence, but not high enough to restrain very breachy stock.

Our four inch mesh contains one-fourth more wire for the same height, and is correspondingly better; 46 inches or higher will be found reliable for stock, but we think 50 and 54 inch is preferable. We make 66 and 70 inch fence specially for deer parks and barn lots, or bull lots, and no cheaper fence can be used for that purpose.

In using this netting for city lots a railing and base board, as in cut No. 1, takes the place of braces at the ends of the fence and makes it more ornamental.

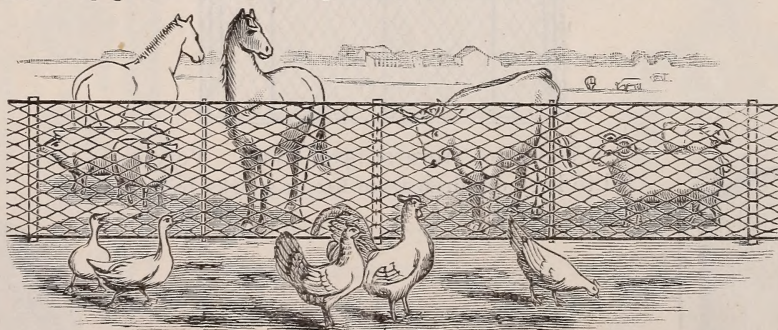


CUT NO. 1.



CUT NO. 2.

Cut No. 1 shows fence put up with railing, and Cut No. 2 shows end view of the same.
Cut No. 3 and third page of cover shows the general purpose and character of the fence.



CUT NO. 3.

Price List of Sedgwick's Steel Wire Fence.

| SIZE OF MESH 4x7 IN. | | | | | |
|----------------------|----------------------|----------------------|--------------------|----------------------|----------------|
| Height in. In. | Size of Margin Wire. | Size of Netting Wire | Wgt. per rod. Lbs. | Price per foot. Cts. | Price per Rod. |
| 34 | No. 9 | No. 13 | 9 | 10 1-2 | \$1 47 |
| 38 | " 9 | " 13 | 9 8 | 11 | 1 56 |
| 42 | " 9 | " 13 | 10 6 | 11 1-2 | 1 65 |
| 46 | " 9 | " 13 | 11 4 | 12 | 1 75 |
| 50 | " 9 | " 13 | 12 3 | 12 1-2 | 1 85 |
| 54 | " 9 | " 13 | 13 | 13 | 1 95 |
| 58 | " 9 | " 13 | 13 8 | 13 1-2 | 2 05 |
| 62 | " 9 | " 13 | 14 6 | 14 | 2 15 |
| 66 | " 9 | " 13 | 15 4 | 14 1-2 | 2 25 |
| 70 | " 9 | " 13 | 16 | 15 | 2 35 |

| SIZE OF MESH 5x8 IN. | | | | | |
|----------------------|----------------------|----------------------|--------------------|----------------------|----------------|
| Height in. In. | Size of Margin Wire. | Size of Netting Wire | Wgt. per rod. Lbs. | Price per foot. Cts. | Price per Rod. |
| 37 | No. 9 | No. 13 | 8 3 | 10 | \$1 38 |
| 42 | " 9 | " 13 | 9 | 10 1-2 | 1 47 |
| 47 | " 9 | " 13 | 9 7 | 11 | 1 56 |
| 52 | " 9 | " 13 | 10 6 | 11 1-2 | 1 65 |
| 57 | " 9 | " 13 | 11 5 | 12 | 1 75 |

Discount on uncut rolls... per cent.

" large quantities... per cent.

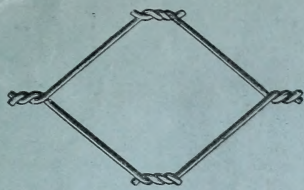
We make rolls of 100-125-150-175-200-250-300 or 400 ft.

When allowing discount of... per cent. for uncut rolls we charge 50 cents for cutting or splicing to fill orders of exact measure.

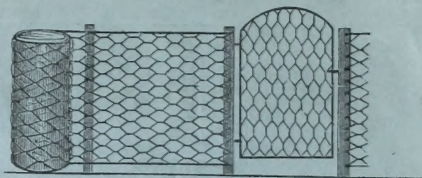
Two per cent. allowed when cash is received with order.

TERMS CASH.

Cut No. 4 represents the general shape of Mesh, and shows the twist correctly.



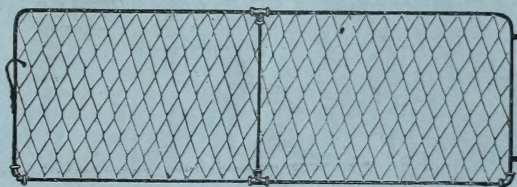
Cut No. 4.



Cut No. 5.

Cut No. 5 represents our Lawn Gates with some fence up, and a roll at the end as it is being put up. Our Lawn Gates weigh from 12 to 20 lbs.

Cut No. 6 represents our Drive Gates, these weigh from 45 to 55 lbs. single, and from 50 to 60 lbs. double.



Cut No. 6.

The SEDGWICK GATES are made of wrought iron pipe and steel wire, and defy all competition in neatness, lightness, strength and durability. These are splendid gates for Lawns, Parks and Cemeteries, and everywhere, where a good gate is wanted.

These gates are all fitted with our adjustable hinge that allows of the gate being set high or low, and to open either way or both ways, with spring latch and either double or reversible catch as per order. All our gates are specially suited to self-opening attachments.

Parties writing for estimates and in making orders, please state height of fence when completed, as well as width of netting, size of mesh. If a railing is intended, state the fact, and for gates give the width and height, measuring to the beginning of the arch. Then we will know just what you want.


Our Net-work will be found excellent for grape arbors, trellises, flower beds and various ornamental purposes. It will be found specially useful in bottom lands subject to overflow.


Price List of Gates.

| LAWN GATES. | | | | DRIVE GATES. | | | |
|--------------|-------------------|--------------|--------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| 3 Feet Wide. | 3 Ft. 4 In. Wide. | 4 Feet Wide. | Double Lawn Gates, 3 Ft. wide. | Single, 10 Feet Wide. | Single, 11 Feet Wide. | Double, 10 Feet Wide. | Double, 12 Feet Wide. |
| Each, \$4 00 | \$4 50 | \$5 00 | \$10 00 | \$10 00 | \$10 50 | \$12 00 | \$14 00 |
| ½ doz. 22 50 | 25 50 | 28 50 | 57 00 | 57 00 | 60 00 | 66 00 | 78 00 |
| Doz. 42 00 | 48 00 | 54 00 | 108 00 | 108 00 | 114 00 | 120 00 | 144 00 |

Other sizes made to order at corresponding rates.

Attachments necessary for hanging the Gates are included at the prices above.

 Double Lawn Gates may be used for Drive Gates. Self-closing Springs for Lawn Gates are 50 cents each.

 Our Gates are made to suit the height of fence. In ordering, please state the height wanted. The measure is to the beginning of the arch. We make the following heights: 36, 40, 46, 52, 56, 60, and 66 inches.

T. M. METCALF, St. Paul, Minn.



In the above engraving we represent **Sedgwick Bros.' Steel Wire Fence**, in practical use. It is a network without bars, and stock may run against it without injury. It will keep out small pigs and poultry as well as the most vicious stock. It shelters no enemies to crops or poultry, makes no shade, accumulates no snow drifts. It is just the thing for gardeners, farmers, and stock raisers. For poultry yards it has no equal. For sheep yards it is valuable, as it will not pull the wool and affords ample protection against dogs or wolves. It is also desirable for lawns, parks and cemeteries.

Contracts made for putting up above fence in St. Paul and Minneapolis. Orders and correspondence solicited. The trade supplied on liberal terms. Retail Price List on last page of Catalogue.

MASS. HORT. EXHIB. 1891
FEB 8
BOSTON